REMARKS

The Applicant appreciates the time taken by the Examiner to review the Applicant's present application. This application has been carefully reviewed in light of the Examiner's comments, including the Office Action mailed July 9, 2008. The Applicant respectfully requests reconsideration and favorable action in this case.

Summary of rejections and amendments

The Examiner rejected claims 1-16 and 19-23 under 35 U.S.C. §103(a). The Applicant has canceled claims 3-4 and 13-14 and has added new claims 24-26. Claims 1-2, 5-12, 15-16 and 19-26 are pending in the application.

Rejections under 35 U.S.C. §103

Claims 1-4, 7, 10-14, 19, 22 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Pub. No. 2003/0074381 ("Awad") in view of U.S. Patent No. 5,471,411 ("Adams"), and further in view of U.S. Patent No. 4,727,505 ("Konishi"). The Applicant respectfully traverses this rejection.

In order to establish a prima facie case of obviousness under 35 U.S.C. 103, three basic criteria must be met. The prior art references must teach or suggest all the claim limitations, there must be some suggestion or motivation to combine the references, and there must be a reasonable expectation of success. M.P.E.P. 2143. The Applicant respectfully submits that at least two of these criteria have not been met.

In regard to claim 21, the Examiner states that Awad discloses a method including storing a plurality of sets of filter coefficients in a memory (citing abstract and paragraphs 0010, 0015 and 0025), and selecting a first one of the sets of filter coefficients (citing paragraph 0025).

In fact, Awad does not disclose that a plurality of sets of filter coefficients are stored in a memory, but instead teaches that the filter coefficients are generated dynamically (paragraph 0010). Moreover, Awad makes clear that only one set of filter coefficients (the most recently selected set) is stored (paragraphs 0070, 0130). Thus, Awad fails to teach that a plurality of sets of filter coefficients are stored in a memory as recited in the claim.

Further, in regard to the limitation that each set of filter coefficients defines a different filter function, the Applicant submits that Awad is silent on this point. Awad teaches that each of the generated sets of filter coefficients is generated in the same manner – each is generated on the basis of a subset of a sequence of samples from a first signal and a subset of a sequence of samples from a second signal (paragraph 0010, lines 5-8 and 13-16). Thus, Awad fails to teach the limitation that the stored sets of filter coefficients define different filter functions.

The Examiner points out that Awad fails to disclose interpolating a selected set of filter coefficients, but states that this is taught by Adams. The Examiner asserts that it would have been obvious to a person of ordinary skill in the art to modify Awad to perform interpolation, and indicates that this modification would have been motivated by "the benefit of varying the output samples of the processed signal." The Examiner also states that Awad and Adams fail to disclose convolving the input signal with the filter coefficients, but contends that this is taught by Konishi. The Examiner suggests that a person of ordinary skill would be motivated to modify the teachings of Awad and Adams as taught by Konishi in order to process signals containing a large number of high-frequency components, as well as providing a convolution arithmetic circuit suitable for real-time processing of digital signals. The Applicant respectfully disagrees.

Because the filter coefficients of Awad are generated dynamically, they can be generated at a desired sample rate without the need for interpolation as taught by Adams. Further, Awad teaches the generation of the filter coefficients, but does not appear to teach the subsequent processing of an input signal using the generated filter coefficients, so there is no motivation to vary the sample rate of such a signal. Still further, since the filter coefficients generated by Awad represent the impulse response of Awad's system, filtering a signal that has already been (or will be) processed by Awad's system will serve to magnify distortion caused by the system. A person of ordinary skill would therefore be motivated NOT to perform this processing or to combine the cited references.

For at least the foregoing reasons, the Applicant respectfully submits that the Awad, Adams and Konishi references fail to establish a prima facie case of obviousness of claim 1 as required by M.P.E.P. 2143. The Applicant notes that independent claims 10, 11 and 22 were rejected for the same reasons as claim 1, and respectfully submits that these claims are distinguished from the cited references for the same reasons set forth above with respect to claim 1. The Applicant also notes that all of the dependent claims in the application depend from and include the limitations of the respective independent claims, and that the dependent claims are therefore distinguished from the cited references for the same reasons as the independent claims. The Applicant therefore believes all of the claims are in condition for allowance.

The Applicant points out that new claims 24-26 have been added to the application. Each of these claims depends from a corresponding one of independent claims 1, 10 and 22. Each of new claims 24-26 includes limitations which specify that the sets of filter coefficients are stored prior to receiving the input signal, and that the filter function of each set of coefficients corrects distortion in the input signal. These limitations are believed to further clarify the distinctions between the invention and the cited prior art references which are discussed above.

Conclusion

The Applicant has now made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include an acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action.

For at least the foregoing reasons, the Applicant respectfully requests allowance of all claims pending in the application. The Examiner is invited to telephone the undersigned at the number listed below for prompt action in the event any issues remain.

If any extensions of time are necessary to prevent the above referenced application from becoming abandoned, the Applicant hereby petitions for such extensions. If any fees are inadvertently omitted, or if any additional fees are required, or if any amounts have been overpaid, please appropriately charge or credit those fees to Deposit Account No. 50-3085 of the Law Offices of Mark L. Berrier.

Respectfully submitted,

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